Commonwealth of Kentucky
Natural Resources and Environmental Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382

AIR QUALITY PERMIT

Permittee Name:	**Martek Biosciences Corporation**
Mailing Address:	**555 Rolling Hills Lane** **Winchester, KY 40391**
Source Name:	**Martek Biosciences Corporation**
Mailing Address:	**Same as above**
Source Location:	**Same as above (2nd location also on Rolling Hills Lane)**
Permit Number:	**V-00-010 (Revision 1)**
Log Number:	**G102**
Review Type:	**Title V**
Source ID #:	**21-049-00032**
Regional Office:	**Frankfort Regional Office** **643 Teton Trail, Suite B** **Frankfort, KY 40601-1758** **(502) 564-3358**
County:	**Clark**
Application Complete Date:	**February 25, 2000**
Issuance Date:	**June 1, 2000**
Revision Date:	**October 20, 2003**
Expiration Date:	**June 1, 2005**

John S. Lyons, Director
Division for Air Quality

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Rev. #	Permit type	Log #	Complete Date	Issuance Date	Summary of Action
---	Initial Issuance	G102	02/25/2000	06/01/2000	
1	Significant Revision	54317 55762	03/20/2002 06/13/2003	10/20/2003	New Construction

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted the Kentucky Division for Air Quality hereby authorizes the construction / operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first having submitted a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Winchester Plant 1

101 (01) **Boiler #1, East Boiler**
Natural gas fired
8.37 mmBtu/hr rated capacity
Cleaver Brook boiler, installed 1981

102 (02) **Boiler #2, West Boiler**
Natural gas fired
8.37 mmBtu/hr rated capacity
Cleaver Brook boiler, installed 1981

103 (03) **Boiler #3, Extraction Boiler**
Natural gas fired
8.37 mmBtu/hr rated capacity
Cleaver Brook boiler, installed 1996

107 **Boiler #4, Fermentation Boiler**
Low NOx burner with flue gas recirculation
Natural gas fired
33.6 mmBtu/hr rated capacity
Cleaver Brook boiler, installed 2002

APPLICABLE REGULATIONS:
401 KAR 59:015, New indirect heat exchangers, applies to the particulate matter and sulfur dioxide emissions from indirect heat exchangers, commenced on or after April 9, 1972 with a capacity of 250 million BTU per hour heat input or less with respect to particulate emissions and sulfur dioxide emissions.

401 KAR 60:005 incorporating by reference 40 CFR 60, Subpart Dc, Standards of performance for small industrial-commercial-institutional steam generating, applies to each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million Btu per hour (Btu/hr)) or less, but greater than or equal to 2.9 MW (10 million Btu/hr) [40 CFR 60.40c(a)].

1. Operating Limitations:
The boilers shall be fired with natural gas only.

Compliance Demonstration Method:
The permittee shall monitor and maintain records of daily natural gas usage.

2. Emission Limitations:
Standards for Particulate Matter:
a. Pursuant to 401 KAR 59:015 Section 4(1)(c), for Boilers # 1 and 2, emissions of particulate matter shall not exceed 0.50 lbs. per mmBTU actual heat input.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b. Pursuant to 401 KAR 59:015 Section 4(1)(c), for Boiler # 3, emissions of particulate matter shall not exceed 0.45 lbs. per mmBTU actual heat input.
c. Pursuant to 401 KAR 59:015 Section 4(1)(c), for Boiler # 4, emissions of particulate matter shall not exceed 0.28 lbs. per mmBTU actual heat input.
d. Pursuant to 401 KAR 59:015, Section 4(2), emissions of particulate matter from Boilers # 1, 2, 3, & 4 shall not exceed 20 percent opacity.

Standards for Sulfur Dioxide:
e. Pursuant to 401 KAR 59:015, Section 5(1)(a), for Boilers # 1 and 2, emissions of sulfur dioxide shall not exceed 2.43 lbs. per mmBTU actual heat input.
f. Pursuant to 401 KAR 59:015, Section 5(1)(a), for Boiler # 3, emissions of sulfur dioxide shall not exceed 2.06 lbs. per mmBTU actual heat input.
g. Pursuant to 401 KAR 59:015, Section 5(1)(a), for Boiler # 4, emissions of sulfur dioxide shall not exceed 0.88 lbs. per mmBTU actual heat input.

Compliance Demonstration Method: No compliance demonstration is required. The potential to emit and actual emissions of sulfur dioxide and particulate from the natural gas boilers are less than 10% of their respective allowable emission rates.

3. Testing Requirements:
Pursuant to 401 KAR 59:005 Section 2(2) and 401 KAR 50:045 Section 1, performance testing using Reference methods specified in 401 KAR 50:015 shall be conducted as required by the Division.

4. Specific Monitoring Requirements:
The permittee shall monitor daily natural gas usage for each boiler.

5. Specific Recordkeeping Requirements:
The permittee shall maintain daily records of natural gas usage for each boiler for a period of five (5) years. [40 CFR 60.48c(g)]

6. Specific Reporting Requirements:
The permittee shall submit a report of the following information to the Division for Air Quality's Frankfort Regional Office in accordance with Section F.5, F.6, and F.8:
a. The daily records of natural gas usage for each boiler.
b. For Boiler #4, notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.7. This notification shall include:
(1) The design heat input capacity of Boiler #4 and identification of the fuel to be combusted in the boiler.
(2) The annual capacity factor at which the permittee anticipates operating Boiler #4 based on all fuels fired and based on each individual fuel fired.
c. Any exceedance of the particulate matter, opacity, and sulfur dioxide emissions limitations within thirty days of when the exceedance is determined.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Winchester Plant 1

104 (04) Spray Dryer

Description: Damrow Spray Dryer, Natural gas fired.
Rated Capacity: 6.5 mmBTU/hr
Date of installation: 1983

APPLICABLE REGULATIONS:
401 KAR 59:010, New process operations, applies to each affected facility or source associated with a process operation which is not subject to another emission standard with respect to particulates on or after July 2, 1975.

1. Operating Limitations: None.

2. Emission Limitations:

a. Mass Emission Limit: Pursuant to 401 KAR 59:010, Section 3(2), the emission rate of particulate matter shall not exceed 3.59 lb/hr.

b. Opacity Limit: Pursuant to 401 KAR 59:010, Section 3(1), no person shall cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack which is equal to or greater than twenty (20) percent opacity.

Compliance Demonstration Method: No compliance demonstration is required. The potential to emit of particulate from the spray dryer is less than 60% of the allowable emission rate.

3. Testing Requirements:
Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in Regulation 401 KAR 50:015 shall be conducted as required by the Division.

4. Specific Monitoring Requirements:
The permittee shall monitor and maintain records of the following parameters:

a. The monthly usage of natural gas.
b. The annual amount of biomass entering the spray dryer.
c. The monthly hours of operation of the spray dryer.

5. Specific Recordkeeping Requirements:
Please refer to 4. Specific Monitoring Requirements.
All records shall be kept for a period of five years.

6. Specific Reporting Requirements:
Please refer to reporting requirements in Section F.5.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Winchester Plant 1

105 (06) Pilot Spray Dryer

Description: APV Spray Dryer, Natural gas fired.
Rated Capacity: 0.24 mmBTU/hr
Date of installation: 1998

APPLICABLE REGULATIONS:
401 KAR 59:010, New process operations, applies to each affected facility or source associated with a process operation which is not subject to another emission standard with respect to particulates on or after July 2, 1975.

1. Operating Limitations: None.

2. Emission Limitations:

a. Mass Emission Limit: Pursuant to 401 KAR 59:010, Section 3(2), the emission rate of particulate matter shall not exceed 2.34 lb/hr.

b. Opacity Limit: Pursuant to 401 KAR 59:010, Section 3(1), no person shall cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack which is equal to or greater than twenty (20) percent opacity.

Compliance Demonstration Method: No compliance demonstration is required. The potential to emit of particulate from the pilot spray dryer is less than 65% of the allowable emission rate.

3. Testing Requirements:

Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in Regulation 401 KAR 50:015 shall be conducted as required by the division.

4. Specific Monitoring Requirements:

The permittee shall monitor and maintain records of the following parameters:

a. The monthly usage of natural gas.

b. The monthly amount of biomass entering the pilot spray dryer.

5. Specific Recordkeeping Requirements:

Please refer to 4. Specific Monitoring Requirements.
All records shall be kept for a period of five years.

6. Specific Reporting Requirements:

Please refer to reporting requirements in Section F.5.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Winchester Plant 1

106 (08) Oil Extraction Process

Description:
Croll Reynolds steam jets, Model 222-S6-S6, installed 1996
Crown Iron Works mineral oil scrubber, installed 1996
Microfluidics microfluidizer, Model M210-EH, installed 1998
Microfluidics microfluidizer, Model M-700, installed 1999
Sharples P400 Super D-Canter, installed 1998
Hexane evaporator (Skid 3), installed 1996
Hexane evaporator (Skid 4), installed 1996
Crown Iron Works, Model IV extractor, installed 1996
Fresh hexane storage tank, 5000 gallons, installed 1996
Two (2) recycled DHA hexane storage tanks, 3000 gallons, installed 1996
Purified DHA tank, 550 gallons, installed 2000

APPLICABLE REGULATIONS:
401 KAR 50:012, General application, applies to all major air contaminant sources for which a standard is not specified in Kentucky's Air Quality Administrative Regulations.

401 KAR 63:020, Potentially hazardous matter or toxic substances, applies to each affected facility which emits or may emit potentially hazardous matter or toxic substances, provided such emissions are not elsewhere subject to the provisions of the administrative regulations of the Division for Air Quality.

1. **Operating Limitations:**
   See Section D - Source Emission Limitations and Testing Requirements.

2. **Emission Limitations:**
   See Section D - Source Emission Limitations and Testing Requirements.

3. **Testing Requirements:** None.

4. **Specific Monitoring Requirements:**
   The permittee shall monitor and maintain records for the following parameters:
   a. Monthly losses of commercial hexane.
   b. Monthly hours of operation of the extraction process.

5. **Specific Recordkeeping Requirements:**
   Please refer to 4. Specific Monitoring Requirements.
   All records shall be kept for a period of five years.

6. **Specific Reporting Requirements:**
   Please refer to reporting requirements of Section F.5.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Winchester Plant 2

201 (01) Media Preparing Brine Tank (TK – 6514)

Description: Dry Salt Pneumatic Unloading into Brine Tank (TK-6514)
Maximum continuous rating: 14,000 pounds per hour
Proposed date of installation: February 2004

Control Equipment:
Bin Vent Filter (FL-6518)
Pollutant removal/destruction efficiency: 99.0%
Proposed date of installation: February 2004

APPLICABLE REGULATIONS:
401 KAR 59:010, New process operations, applies to each affected facility or source associated with a process operation which is not subject to another emission standard with respect to particulates on or after July 2, 1975.

1. **Operating Limitations:**
   None

2. **Emission Limitations:**
   a. Pursuant to 401 KAR 59:010 Section 3(2), emissions of particulate matter shall not exceed the allowable rate limit as calculated by the following equation using the process weight rate (in units of tons/hr).
      For process rates up to 60,000 lb/hr: $E = 3.59P^{0.62}$
      Where E = rate of emissions in lb/hr, and
      P = process weight rate in tons/hr.
   b. Pursuant to 401 KAR 59:010 Section 3(1), no person shall cause, suffer, allow, or permit any continuous emissions into the open air from the Bin Vent Filter (FL-6518) which is equal to or greater than twenty (20) percent opacity.
   c. The Bin Vent Filter (FL-6518) associated with the Media Preparing Brine Tank (TK-6514) shall control emissions of particulate matter and be operated properly in accordance with manufacturer's specifications and/or standards at all times the unit is in operation.

Compliance Demonstration Method

a. Mass Emission Standard:
   Controlled PM emission rate (lb/hr) = [{Amount of brine (pounds) processed in the Media Preparing Brine Tank (TK-6514) per month} x {Emission Factor in pounds PM emitted per ton brine produced} x {1 – (CE/100)} ÷ {Total hours of brine processed during the month}] ÷ (2000 lb/ton)
   Where CE = Control Efficiency = 99.0%

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b. Opacity limit:

i. During periods of normal operation of the Bin Vent Filter (FL-6518), the permittee shall monitor and maintain records of visible emissions as mentioned in 4(b) and 5(b), below.

ii. If the Media Preparing Brine Tank (TK-6514) is in operation during any period of malfunction of the Bin Vent Filter (FL-6518), the permittee shall cease operating the Media Preparing Brine Tank (TK-6514) immediately until corrective actions are completed.

c. Use of control equipment:

The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when the Media Preparing Brine Tank (TK-6514) is in operation but the Bin Vent Filter (FL-6518) is not in operation.

3. Testing Requirements:

Pursuant to 401 KAR 59:005 Section 2(2) and 401 KAR 50:045 Section 1, performance testing using Reference methods specified in 401 KAR 50:015 shall be conducted as required by the Division.

4. Specific Monitoring Requirements:

The permittee shall monitor the following parameters:

a. The total amount of brine produced in the Media Preparing Brine Tank (TK-6514), and the total hours of operation each month.

b. Weekly observations of the visible emissions from the Bin Vent Filter (FL-6518). The observations shall last for a minimum of three (3) minutes during operation of the Media Preparing Brine Tank (TK-6514) and associated equipment. If visible emissions are observed, the permittee shall perform EPA Method 9 opacity reading immediately.

c. Monthly proper operation of the Bin Vent Filter (FL-6518) in accordance with Section 7, **Specific Control Equipment Operating Conditions.**

5. Specific Recordkeeping Requirements:

The permittee shall maintain records of the following information:

a. The total amount of brine produced in the Media Preparing Brine Tank (TK-6514), and the total hours of operation each month.

b. A log shall be kept for all the visible emission observations. Notification in the weekly log shall be made of but not limited to the following:

i. Whether any air emissions (except for water vapor) were visible from the plant.

ii. Whether the visible emissions were normal for the process.

iii. The cause of any abnormal emissions and any corrective action taken.

c. A record of monthly inspections, routine maintenance performed, and any corrective action on the Bin Vent Filter (FL-6518) shall be maintained.

d. The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when Media Preparing Brine Tank (TK-6514) is in operation but the Bin Vent Filter (FL-6518) is not in operation.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Specific Reporting Requirements:

The permittee shall submit a report of the following information to the Division for Air Quality's Frankfort office in accordance with Section F. 5. and F. 7:

a. Any exceedance of the particulate matter and opacity emissions limitations within thirty days of when the exceedance is determined.

b. A record of monthly inspections, routine maintenance performed, and any corrective action on the Bin Vent Filter (FL-6518).

c. The occurrence, duration, cause, and any corrective action taken for each incident when the Media Preparing Brine Tank (TK-6514) is in operation but the Bin Vent Filter (FL-6518) is not in operation.

7. Specific Control Equipment Operating Conditions:

a. The Bin Vent Filter (FL-6518) shall be operated in accordance with design/operating parameters at all times the Media Preparing Brine Tank (TK-6514) is in operation. Design/operating parameters shall be established during the time frame of compliance testing.

b. Preventive maintenance shall be performed in accordance with manufacturer's specifications. The Bin Vent Filter (FL-6518) shall be inspected on a monthly basis for proper operation of the following:

   i. Airflow source and equipment.

   ii. Pressure drop measuring system.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Winchester Plant 2

202 (02) Media Preparing Blending

Description: Dry Ingredient Bag Dump over each of Blenders MX-1507 and MX-1525
Maximum continuous rating: 14,000 pounds per hour
Proposed date of installation: February 2004

Control Equipment:
Media Preparing Baghouse (FL-1570)
Pollutant removal/destruction efficiency: 99.0%
Proposed date of installation: February 2004

APPLICABLE REGULATIONS:
401 KAR 59:010, New process operations, applies to each affected facility or source associated with a process operation which is not subject to another emission standard with respect to particulates on or after July 2, 1975.

1. Operating Limitations:
None

2. Emission Limitations:

a. Pursuant to 401 KAR 59:010 Section 3(2), emissions of particulate matter shall not exceed the allowable rate limit as calculated by the following equation using the process weight rate (in units of tons/hr).
For process rates up to 60,000 lb/hr: $E = 3.59P^{0.62}$
Where E = rate of emissions in lb/hr, and
P = process weight rate in tons/hr.

b. Pursuant to 401 KAR 59:010 Section 3(1), no person shall cause, suffer, allow, or permit any continuous emissions into the open air from the Media Preparing Baghouse (FL-1570) which is equal to or greater than twenty (20) percent opacity.

c. The Media Preparing Baghouse (FL-1570) associated with the Media Preparing Blenders (MX-1507 and MX-1525) shall control emissions of particulate matter and be operated properly with manufacturer's specifications and/or standard at all times the unit is in operation.

Compliance Demonstration Method

a. Mass Emission Standard:
Controlled PM emission rate (lb/hr) = [{Amount of blending material (pounds) processed in the Media Preparing Blenders (MX-1507 and MX-1525) per month} x {Emission Factor in pounds PM emitted per ton blending material produced} x {1 – (CE/100)} ÷ {Total hours of blending material processed during the month}] ÷ (2000 lb/ton)
Where CE = Control Efficiency = 99.0%

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b. Opacity limit:
   i. During periods of normal operation of the Media Preparing Baghouse (FL-1570), the permittee shall monitor and maintain records of visible emissions as mentioned in 4(b) and 5(b), below.
   ii. If the Media Preparing Blenders (MX-1507 and MX-1525) are in operation during any period of malfunction of the Media Preparing Baghouse (FL-1570), the permittee shall cease the operation of the Media Preparing Blenders (MX-1507 and MX-1525) and associated equipment immediately until corrective actions are completed.

c. Use of control equipment:
   The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when the Media Preparing Blenders (MX-1507 and MX-1525) are in operation but the Media Preparing Baghouse (FL-1570) is not in operation.

3. Testing Requirements:

Pursuant to 401 KAR 59:005 Section 2(2) and 401 KAR 50:045 Section 1, performance testing using Reference methods specified in 401 KAR 50:015 shall be conducted as required by the Division.

4. Specific Monitoring Requirements:

The permittee shall monitor the following parameters:

a. The total amount of blending material produced in the Media Preparing Blenders (MX-1507 and MX-1525), and the total hours of operation each month.
b. Weekly observations of the visible emissions from the Media Preparing Baghouse (FL-1570). The observations shall last for a minimum of three (3) minutes during operation of the Media Preparing Blenders (MX-1507 and MX-1525) and associated equipment. If visible emissions are observed, the permittee shall perform EPA Method 9 opacity reading immediately.
c. Monthly proper operation of the Media Preparing Baghouse (FL-1570) in accordance with Section 7, **Specific Control Equipment Operating Conditions.**

5. Specific Recordkeeping Requirements:

The permittee shall maintain records of the following information:

a. The total amount of blending material produced in the Media Preparing Blenders (MX-1507 and MX-1525), and the total hours of operation each month.
b. A log shall be kept for all the visible emission observations. Notification in the weekly log shall be made of but not limited to the following:
   i. Whether any air emissions (except for water vapor) were visible from the plant.
   ii. Whether the visible emissions were normal for the process.
   iii. The cause of any abnormal emissions and any corrective action taken.
c. A record of monthly inspections, routine maintenance performed, and any corrective action on the Media Preparing Baghouse (FL-1570) shall be maintained.
d. The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when the Media Preparing Blenders (MX-1507 and MX-1525) are in operation but the Media Preparing Baghouse (FL-1570) is not in operation.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Specific Reporting Requirements:

The permittee shall submit a report of the following information to the Division for Air Quality's Frankfort office in accordance with Section F. 5. and F. 7:

a. Any exceedance of the particulate matter and opacity emissions limitations within thirty days of when the exceedance is determined.
b. A record of monthly inspections, routine maintenance performed, and any corrective action on the Media Preparing Baghouse (FL-1570).
c. The occurrence, duration, cause, and any corrective action taken for each incident when the Media Preparing Blenders (MX-1507 and MX-1525) are in operation but the Media Preparing Baghouse (FL-1570) is not in operation.

7. Specific Control Equipment Operating Conditions:

a. The Media Preparing Baghouse (FL-1570) shall be operated in accordance with design/operating parameters at all times the Media Preparing Blenders (MX-1507 and MX-1525) are in operation. Design/operating parameters shall be established during the time frame of compliance testing.
b. Preventive maintenance shall be performed in accordance with manufacturer's specifications. The Media Preparing Baghouse (FL-1570) shall be inspected on a monthly basis for proper operation of the following:
    i. Airflow source and equipment.
    ii. Pressure drop measuring system.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Winchester Plant 2

203 (03) Culture Growing and Fermenting

Description: Culture growing and fermenting consists of the following:
Eight Seed Fermenters: RE-2001, RE-2011, RE-2021, RE-2031, RE-2101, RE-2111, RE-2021 and RE-2131.
Four Production Fermenters: RE-2043, RE-2044, RE-2045 and RE-2046.
Maximum continuous rating of all Fermenters combined: 8800 pounds per hour
Proposed date of installation: February 2004

Control Equipment:
Seed Fermenter S-4 Cyclones CY-2033 and CY-2133 are used by Seed Fermenters
Production Fermenter Cyclones CY-2056, CY-2057, CY-2063 and CY-2064 are used by Production Fermenters
Pollutant removal/destruction efficiency: 80.0%
Proposed date of installation: February 2004

APPLICABLE REGULATIONS:
401 KAR 59:010, New process operations, applies to each affected facility or source associated with a process operation which is not subject to another emission standard with respect to particulates on or after July 2, 1975.

1. **Operating Limitations:**
   None

2. **Emission Limitations:**
   a. Pursuant to 401 KAR 59:010 Section 3(2), emissions of particulate matter from each Fermenter shall not exceed 2.34 lb/hr.
   b. Pursuant to 401 KAR 59:010 Section 3(1), no person shall cause, suffer, allow, or permit any continuous emissions into the open air from the cyclones, which is equal to or greater than twenty (20) percent opacity.
   c. The cyclones associated with Seed and Production Fermenters shall control emissions of particulate matter and be operated properly with manufacturer's specifications and/or standard at all times the unit is in operation.

   Compliance Demonstration Method
   a. Mass Emission Standard:
      Controlled PM emission rate (lb/hr) = [{Amount of fermentation material (pounds) processed in Seed and Production Fermenters per month} x {Emission Factor in pounds PM emitted per ton fermentation material produced} x {1 – (CE/100)} ÷ {Total hours of fermentation material processed during the month}] ÷ (2000 lb/ton)
      Where CE = Control Efficiency = 80.0%

REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b. Opacity limit:
   i. During periods of normal operation of the cyclones, the permittee shall monitor and maintain records of visible emissions as mentioned in 4(b) and 5(b), below.
   ii. If the Culture Growing and Fermenting equipment is in operation during any period of malfunction of the cyclones, the permittee shall cease operating the Culture Growing and Fermenting equipment immediately until corrective actions are completed. Take necessary corrective actions mentioned in Section 5.

c. Use of control equipment:
   The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when the fermenters are in operation but the cyclones are not in operation.

3. **Testing Requirements:**
Pursuant to 401 KAR 59:005 Section 2(2) and 401 KAR 50:045 Section 1, performance testing using Reference methods specified in 401 KAR 50:015 shall be conducted as required by the Division.

4. Specific Monitoring Requirements:
The permittee shall monitor the following parameters:
a. The total amount of fermentation material produced in the Fermenters, and the total hours of operation each month.
b. Weekly observations of the visible emissions from the cyclones. The observations shall last for a minimum of three (3) minutes during operation of the fermenters. If visible emissions are observed, the permittee shall perform EPA Method 9 opacity reading immediately.
c. Monthly proper operation of the cyclones in accordance with Section 7, **Specific Control Equipment Operating Conditions.**

5. Specific Recordkeeping Requirements:
The permittee shall maintain records of the following information:
a. The total amount of fermentation material produced in the Fermenters, and the total hours of operation each month.
b. A log shall be kept for all the visible emission observations. Notification in the weekly log shall be made of but not limited to the following:
   i. Whether any air emissions (except for water vapor) were visible from the plant.
   ii. Whether the visible emissions were normal for the process.
   iii. The cause of any abnormal emissions and any corrective action taken.
c. A record of monthly inspections, routine maintenance performed, and any corrective action on the cyclones shall be maintained.
d. The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when the Fermenters are in operation but the cyclones are not in operation.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Specific Reporting Requirements:

The permittee shall submit a report of the following information to the Division for Air Quality's Frankfort office in accordance with Section F. 5. and F. 7:

a. Any exceedance of the particulate matter and opacity emissions limitations within thirty days of when the exceedance is determined.
b. A record of monthly inspections, routine maintenance performed, and any corrective action on the cyclones.
c. The occurrence, duration, cause, and any corrective action taken for each incident when Fermenters are in operation but the cyclones are not in operation.

7. Specific Control Equipment Operating Conditions:

a. The cyclones shall be operated in accordance with design/operating parameters at all times the Fermenters are in operation. Design/operating parameters shall be established during the time frame of compliance testing.
b. Preventive maintenance shall be performed in accordance with manufacturer's specifications. The cyclones shall be inspected on a monthly basis for proper operation of the following:
    i. Airflow source and equipment.
    ii. Pressure drop measuring system.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Winchester Plant 2

204 (04) Dryer Exhaust

Description: Dryer DR-3750
Maximum continuous rating: 1000 pounds per hour
Proposed date of installation: February 2004

Control Equipment:
i. Spray Dryer Exhaust Dry Cyclone CY-3757
Pollutant removal/destruction efficiency: 85.0%
ii. Spray Dryer Exhaust Wet Cyclone CY-3766
Pollutant removal/destruction efficiency: 95.0%
Proposed date of installation: February 2004

APPLICABLE REGULATIONS:
401 KAR 59:010, New process operations, applies to each affected facility or source associated with a process operation which is not subject to another emission standard with respect to particulates on or after July 2, 1975.

1. Operating Limitations:
None

2. Emission Limitations:
a. Pursuant to 401 KAR 59:010 Section 3(2), emissions of particulate matter shall not exceed 2.34 lb/hr.
b. Pursuant to 401 KAR 59:010 Section 3(1), no person shall cause, suffer, allow, or permit any continuous emissions into the open air from the Dry cyclone (CY-3757) and the Wet cyclone (CY-3766) which is equal to or greater than twenty (20) percent opacity.
c. The cyclones associated with Dryer (DR-3750) shall control emissions of particulate matter and be operated properly in accordance with manufacturer's specifications and/or standards at all times the unit is in operation.

Compliance Demonstration Method
a. Mass Emission Standard:
Controlled PM emission rate (lb/hr) = [{Amount of biomass (pounds) dried (DR-3750) per month} x {Emission Factor in pounds PM emitted per ton biomass processed} x {1 – (CE/100)} ÷ {Total hours of biomass processed during the month}] ÷ (2000 lb/ton)
Where CE = Control Efficiency = 99.25%

REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b. Opacity limit:
   i. During periods of normal operation of Dry cyclone (CY-3757) and Wet cyclone (CY-3766), the permittee shall monitor and maintain records of visible emissions as mentioned in 4(b) and 5(b) below.
   ii. If the Dryer (DR-3750) is in operation during any period of malfunction of either the Dry cyclone (CY-3757) or the Wet cyclone (CY-3766), the permittee shall cease operating the Dryer (DR-3750) immediately until necessary corrective actions are completed.

c. Use of control equipment:
   The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when the Dryer (DR-3750) is in operation but either the Dry cyclone (CY-3757) or the Wet cyclone (CY-3766) is not in operation.

3. Testing Requirements:

Pursuant to 401 KAR 59:005 Section 2(2) and 401 KAR 50:045 Section 1, performance testing using Reference methods specified in 401 KAR 50;015 shall be conducted as required by the Division.

4. Specific Monitoring Requirements:

The permittee shall monitor the following parameters:

a. The total amount of biomass (single-cell algae) processed in the Dryer (DR-3750), and the total hours of operation each month.
b. Weekly observations of the visible emissions from both the Dry cyclone (CY-3757), and the Wet cyclone (CY-3766). The observations shall last for a minimum of three (3) minutes during operation of the Dryer (DR-3750) and associated equipment. If visible emissions are observed, the permittee shall perform EPA Method 9 opacity reading immediately.
c. Monthly proper operation of both the Dry cyclone (CY-3757), and the Wet cyclone (CY-3766) in accordance with Section 7, **Specific Control Equipment Operating Conditions.**

5. Specific Recordkeeping Requirements:

The permittee shall maintain records of the following information:

a. The total amount of biomass (single-cell algae) processed in the Dryer (DR-3750), and the total hours of operation each month.
b. A log shall be kept for all the visible emission observations. Notification in the weekly log shall be made of but not limited to the following:
   i. Whether any air emissions (except for water vapor) were visible from the plant.
   ii. Whether the visible emissions were normal for the process.
   iii. The cause of any abnormal emissions and any corrective action taken.
c. A record of monthly inspections, routine maintenance performed, and any corrective action on the Dry cyclone (CY-3757) or the Wet cyclone (CY-3766) shall be maintained.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

d. The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when the Dryer (DR-3750) is in operation but either the Dry cyclone (CY-3757) or the Wet cyclone (CY-3766) is not in operation.

6. Specific Reporting Requirements:

The permittee shall submit a report of the following information to the Division for Air Quality's Frankfort office in accordance with Section F. 5. and F. 7:

a. Any exceedance of the particulate matter and opacity emissions limitations within thirty days of when the exceedance is determined.
b. A record of monthly inspections, routine maintenance performed, and any corrective action on either the Dry cyclone (CY-3757) or the Wet cyclone (CY-3766).
c. The occurrence, duration, cause, and any corrective action taken for each incident when the Dryer (DR-3750) is in operation but either the Dry cyclone (CY-3757) or the Wet cyclone (CY-3766) is not in operation.

7. Specific Control Equipment Operating Conditions:

a. Both the Dry cyclone (CY-3757), and the Wet cyclone (CY-3766) shall be operated in accordance with design/operating parameters at all times the Dryer (DR-3750) is in operation. Design/operating parameters shall be established during the time frame of compliance testing.
b. Preventive maintenance shall be performed in accordance with manufacturer's specifications. The Dry cyclone (CY-3757) and the Wet cyclone (CY-3766) shall be inspected on a monthly basis for proper operation of the following:
   i. Airflow source and equipment.
   ii. Pressure drop measuring system.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Winchester Plant 2

205 (05) Biomass Conveying and Container Filling

Description: Biomass Conveyor (CV-3770)
Maximum continuous rating: 1000 pounds per hour
Proposed date of installation: February 2004

Control Equipment:
Biomass Conveying and Filling Baghouse (FL-3780)
Pollutant removal/destruction efficiency: 99.0%
Proposed date of installation: February 2004

APPLICABLE REGULATIONS:
401 KAR 59:010, New process operations, applies to each affected facility or source associated with a process operation which is not subject to another emission standard with respect to particulates on or after July 2, 1975.

1. Operating Limitations:
None

2. Emission Limitations:

a. Pursuant to 401 KAR 59:010 Section 3(2), emissions of particulate matter shall not exceed 2.34 lb/hr.

b. Pursuant to 401 KAR 59:010 Section 3(1), no person shall cause, suffer, allow, or permit any continuous emissions into the open air from the Biomass Conveying and Filling Baghouse (FL-3780), which is equal to or greater than twenty (20) percent opacity.

c. The Biomass Conveying and Filling Baghouse (FL-3780) associated with Biomass Conveyor (CV-3770) shall control emissions of particulate matter and be operated properly in accordance with manufacturer's specifications and/or standards at all times the unit is in operation.

Compliance Demonstration Method

a. Mass Emission Standard:
Controlled PM emission rate (lb/hr) = [{Amount of biomass (pounds) processed in Biomass Conveyor (CV-3770) per month} x {Emission Factor in pounds PM emitted per ton biomass processed} x {1 – (CE/100)} ÷ {Total hours of biomass processed during the month}] ÷ (2000 lb/ton)
Where CE = Control Efficiency = 99.0%

b. Opacity limit:
   i. During periods of normal operation of the Biomass Conveying and Filling Baghouse (FL-3780), the permittee shall monitor and maintain records of visible emissions as mentioned in 4(b) and 5(b).
   ii. If the Biomass Conveyor (CV-3770) is in operation during any period of malfunction of the Biomass Conveying and Filling Baghouse (FL-3780), the permittee shall cease operating the Biomass Conveyor (CV-3770) immediately until corrective actions are completed.

c. Use of control equipment:
   The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when the Biomass Conveyor (CV-3770) is in operation but the Biomass Conveying and Filling Baghouse (FL-3780) is not in operation.

3. Testing Requirements:

Pursuant to 401 KAR 59:005 Section 2(2) and 401 KAR 50:045 Section 1, performance testing using Reference methods specified in 401 KAR 50;015 shall be conducted as required by the Division.

4. Specific Monitoring Requirements:

The permittee shall monitor the following parameters:

a. The total amount of biomass (single-cell algae) processed in the Biomass Conveyor (CV-3770), and the total hours of operation each month.
b. Weekly observations of the visible emissions from the Biomass Conveying and Filling Baghouse (FL-3780). The observations shall last for a minimum of three (3) minutes during operation of the Biomass Conveyor (CV-3770) and associated equipment. If visible emissions are observed, the permittee shall perform EPA Method 9 opacity reading immediately.
c. Monthly proper operation of the Biomass Conveying and Filling Baghouse (FL-3780) in accordance with Section 7, **Specific Control Equipment Operating Conditions.**

5. Specific Recordkeeping Requirements:

The permittee shall maintain records of the following information:

a. The total amount of biomass (single-cell algae) processed in the Biomass Conveyor (CV-3770), and the total hours of operation each month.
b. A log shall be kept for all the visible emission observations. Notification in the weekly log shall be made of but not limited to the following:
   i. Whether any air emissions (except for water vapor) were visible from the plant.
   ii. Whether the visible emissions were normal for the process.
   iii. The cause of any abnormal emissions and any corrective action taken.
c. A record of monthly inspections, routine maintenance performed, and any corrective action on the Biomass Conveying and Filling Baghouse (FL-3780) shall be maintained.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

d. The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when the Biomass Conveyor (CV-3770) is in operation but the Biomass

Conveying and Filling Baghouse (FL-3780) is not in operation.

6. Specific Reporting Requirements:

The permittee shall submit a report of the following information to the Division for Air Quality's Frankfort office in accordance with Section F. 5. and F. 7:

a. Any exceedance of the particulate matter and opacity emissions limitations within thirty days of when the exceedance is determined.
b. A record of monthly inspections, routine maintenance performed, and any corrective action on the Biomass Conveying and Filling Baghouse (FL-3780).
c. The occurrence, duration, cause, and any corrective action taken for each incident when the Biomass Conveyor (CV-3770) is in operation but the Biomass Conveying and Filling Baghouse (FL-3780) is not in operation.

7. Specific Control Equipment Operating Conditions:

a. Biomass Conveying and Filling Baghouse (FL-3780) shall be operated in accordance with design/operating parameters at all times the Biomass Conveyor (CV-3770) is in operation. Design/operating parameters shall be established during the time frame of compliance testing.
b. Preventive maintenance shall be performed in accordance with manufacturer's specifications. The Biomass Conveying and Filling Baghouse (FL-3780) shall be inspected on a monthly basis for proper operation of the following:
   i. Pulse Jet device to release dust cake from the bags.
   ii. Airflow source and equipment.
   iii. Pressure drop measuring system.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Winchester Plant 2

206 (06) Vegetable Oil Bleaching

Description: Bleaching Vegetable Oil consists of the following:
Powder Bag Dumps: FD-4760, FD-4770 and FD-5060
Powder Feeders: FD-4753, FD-4754 and FD-4763
Maximum continuous rating: 6600 pounds per hour
Proposed date of installation: October 2003

Control Equipment:
Bleaching Earth Baghouse (FL-4765)
Pollutant removal/destruction efficiency: 99.0%
Proposed date of installation: October 2003

APPLICABLE REGULATIONS:
401 KAR 59:010, New process operations, applies to each affected facility or source associated with a process operation which is not subject to another emission standard with respect to particulates on or after July 2, 1975.

1. **Operating Limitations:**
   None

2. **Emission Limitations:**
   a. Pursuant to 401 KAR 59:010 Section 3(2), emissions of particulate matter shall not exceed the allowable rate limit as calculated by the following equation using the process weight rate (in units of tons/hr).
      For process rates up to 60,000 lb/hr: $E = 3.59P^{0.62}$
      Where E = rate of emissions in lb/hr, and
      P = process weight rate in tons/hr.
   b. Pursuant to 401 KAR 59:010 Section 3(1), no person shall cause, suffer, allow, or permit any continuous emissions into the open air from the Bleaching Earth Baghouse (FL-4765) which is equal to or greater than twenty (20) percent opacity.
   c. The Bleaching Earth Baghouse (FL-4765) associated with the Powder Bag Dumps (FD-4760, FD-4770, and FD-5060) and Powder Feeders (FD-4753, FD-4754, and FD-4763) shall control emissions of particulate matter and be operated properly in accordance with manufacturer's specifications and/or standards at all times the unit is in operation.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Compliance Demonstration Method

a. Mass Emission Standard:
   Controlled PM emission rate (lb/hr) = [{Amount of Bleached Alga Oil (pounds) processed

in the Powder Bag Dumps (FD-4760, FD-4770, and FD-5060) and Powder Feeders (FD-4753, FD-4754, and FD-4763) per month} x {Emission Factor in pounds PM emitted per ton of Bleached Alga Oil processed} x {1 – (CE/100)} ÷ {Total hours of of Bleached Alga Oil processed during the month}] ÷ (2000 lb/ton)
Where CE = Control Efficiency = 99.0%

b. Opacity limit:
i. During periods of normal operation of the Bleaching Earth Baghouse (FL-4765), the permittee shall monitor and maintain records of visible emissions as mentioned in 4(b) and 5(b), below.
ii. If the Powder Bag Dumps (FD-4760, FD-4770, and FD-5060) and Powder Feeders (FD-4753, FD-4754, and FD-4763) are in operation during any period of malfunction of the Bleaching Earth Baghouse (FL-4765), the permittee shall cease operating the Powder Bag Dumps (FD-4760, FD-4770, and FD-5060) and Powder Feeders (FD-4753, FD-4754, and FD-4763) immediately until corrective actions are completed.

c. Use of control equipment:
The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when the Powder Bag Dumps (FD-4760, FD-4770, and FD-5060) and Powder Feeders (FD-4753, FD-4754, and FD-4763) are in operation but the Bleaching Earth Baghouse (FL-4765) is not in operation.

4. **Testing Requirements:**
Pursuant to 401 KAR 59:005 Section 2(2) and 401 KAR 50:045 Section 1, performance testing using Reference methods specified in 401 KAR 50:015 shall be conducted as required by the Division.

4. Specific Monitoring Requirements:
The permittee shall monitor the following parameters:
a. The total amount of Bleached Alga Oil processed in the Powder Bag Dumps (FD-4760, FD-4770, and FD-5060) and Powder Feeders (FD-4753, FD-4754, and FD-4763), and the total hours of operation each month.
b. Weekly observations of the visible emissions from the Bleaching Earth Baghouse (FL-4765). The observations shall last for a minimum of three (3) minutes during operation of the Powder Bag Dumps (FD-4760, FD-4770, and FD-5060), Powder Feeders (FD-4753, FD-4754, and FD-4763), and associated equipment. If visible emissions are observed, the permittee shall perform EPA Method 9 opacity reading immediately.
c. Monthly proper operation of the Bleaching Earth Baghouse (FL-4765) in accordance with Section 7, **Specific Control Equipment Operating Conditions.**

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Recordkeeping Requirements:
The permittee shall maintain records of the following information:
a. The total amount of Bleached Alga Oil processed in the Powder Bag Dumps (FD-4760, FD-4770, and FD-5060) and Powder Feeders (FD-4753, FD-4754, and FD-4763), and

the total hours of operation each month.

b. A log shall be kept for all the visible emission observations. Notification in the weekly log shall be made of but not limited to the following:
   i. Whether any air emissions (except for water vapor) were visible from the plant.
   ii. Whether the visible emissions were normal for the process.
   iii. The cause of any abnormal emissions and any corrective action taken.
c. A record of monthly inspections, routine maintenance performed, and any corrective action on the Bleaching Earth Baghouse (FL-4765) shall be maintained.
d. The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when Powder Bag Dumps (FD-4760, FD-4770, and FD-5060) and Powder Feeders (FD-4753, FD-4754, and FD-4763) are in operation but the Bleaching Earth Baghouse (FL-4765) is not in operation.

6. Specific Reporting Requirements:

The permittee shall submit a report of the following information to the Division for Air Quality's Frankfort office in accordance with Section F. 5. and F. 7:

a. Any exceedance of the particulate matter and opacity emissions limitations within thirty days of when the exceedance is determined.
b. A record of monthly inspections, routine maintenance performed, and any corrective action on the Bleaching Earth Baghouse (FL-4765).
c. The occurrence, duration, cause, and any corrective action taken for each incident when Powder Bag Dumps (FD-4760, FD-4770, and FD-5060) and Powder Feeders (FD-4753, FD-4754, and FD-4763) are in operation but the Bleaching Earth Baghouse (FL-4765) is not in operation.

7. Specific Control Equipment Operating Conditions:

a. The Bleaching Earth Baghouse (FL-4765) shall be operated in accordance with design/operating parameters at all times the Powder Bag Dumps (FD-4760, FD-4770, and FD-5060) and Powder Feeders (FD-4753, FD-4754, and FD-4763) are in operation. Design/operating parameters shall be established during the time frame of compliance testing.
b. Preventive maintenance shall be performed in accordance with manufacturer's specifications. The Bleaching Earth Baghouse (FL-4765) shall be inspected on a monthly basis for proper operation of the following:
   i. Airflow source and equipment.
   ii. Pressure drop measuring system.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Winchester Plant 2

207 (07) Vegetable Oil Bleaching

Description: Bleacher (TK-4850)
Maximum continuous rating: 6600 pounds per hour
Proposed date of installation: October 2003

APPLICABLE REGULATIONS:
401 KAR 50:012, General application, applies to all major air contaminant sources for which a standard is not specified in Kentucky's Air Quality Administrative Regulations.

401 KAR 63:020, Potentially hazardous matter or toxic substances, applies to each affected facility which emits or may emit potentially hazardous matter or toxic substances, provided such emissions are not elsewhere subject to the provisions of the administrative regulations of the Division for Air Quality.

1. **Operating Limitations:**
   See Section D - Source Emission Limitations and Testing Requirements.

2. **Emission Limitations:**
   See Section D - Source Emission Limitations and Testing Requirements.

3. **Testing Requirements:**
   Pursuant to 401 KAR 59:005 Section 2(2) and 401 KAR 50:045 Section 1, performance testing using Reference methods specified in 401 KAR 50;015 shall be conducted as required by the Division.

4. **Specific Monitoring Requirements:**
   The permittee shall monitor the following information:
   a. The monthly total amount of Bleached Algal Oil produced in Bleacher (TK-4850).
   b. The monthly total hours of operation of the Vegetable Oil Bleaching process.

5. **Specific Recordkeeping Requirements:**
   The permittee shall maintain records of the following information:
   a. The monthly total amount of Bleached Algal Oil produced in Bleacher (TK-4850).
   b. The monthly total hours of operation of the Vegetable Oil Bleaching process.

6. **Specific Reporting Requirements:**
   The permittee shall submit a report of the following information to the Division for Air Quality's Frankfort office in accordance with Section F. 5. and F. 7:
   a. The monthly total amount of Bleached Algal Oil produced in Bleacher (TK-4850).
   b. The monthly total hours of operation of the Vegetable Oil Bleaching process.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Winchester Plant 2

208 (08) Vegetable Oil Deodorizing

Description: Deodorizing Column (CL-5300)
Maximum continuous rating: 2000 pounds per hour
Proposed date of installation: October 2003

APPLICABLE REGULATIONS:
None

1. **Operating Limitations:**
   None

2. **Emission Limitations:**
   None

3. **Testing Requirements:**
   Pursuant to 401 KAR 59:005 Section 2(2) and 401 KAR 50:045 Section 1, performance testing using Reference methods specified in 401 KAR 50;015 shall be conducted as required by the Division.

4. **Specific Monitoring Requirements:**
   The permittee shall monitor the following information:
   a. The monthly total amount of Deodorized Algal Oil produced in Deodorizing Column (CL-5300).
   b. The monthly total hours of operation of the Vegetable Oil Deodorizing process.

5. **Specific Recordkeeping Requirements:**
   The permittee shall maintain records of the following information:
   a. The monthly total amount of Deodorized Algal Oil produced in Deodorizing Column (CL-5300).
   b. The monthly total hours of operation of the Vegetable Oil Deodorizing process.

6. **Specific Reporting Requirements:**
   The permittee shall submit a report of the following information to the Division for Air Quality's Frankfort office in accordance with Section F. 5. and F. 7:
   a. The monthly total amount of Deodorized Algal Oil produced in Deodorizing Column (CL-5300).
   b. The monthly total hours of operation of the Vegetable Oil Deodorizing process.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Winchester Plant 2

209 (09) Production of Nutritional Oil

Description: Nutritional oil is produced in the following process equipment:
45 Indoor Vents from Surge or Process Vessels and 24 Outdoors Vents from Surge or Process Vessels and Storage Tanks, containing Aqueous Solutions of Inorganic Salts, or Vegetable Oil.
6 Dry Material Dumping or Filling Stations, 4 Filter Cake collection Hoppers and 6 Liquid Container Filling Stations.
Maximum continuous rating: 2000 lb/hr
Proposed date of installation: October 2003 – February 2004

APPLICABLE REGULATIONS:
401 KAR 59:010, New process operations, applies to each affected facility or source associated with a process operation which is not subject to another emission standard with respect to particulates on or after July 2, 1975.

1. Operating Limitations:
None

2. Emission Limitations:

a. Pursuant to 401 KAR 59:010 Section 3(2), emissions of particulate matter shall not exceed the allowable rate limit as calculated by the following equation using the process weight rate (in units of tons/hr).
For process rates up to 60,000 lb/hr: $E = 3.59P^{0.62}$
Where E = rate of emissions in lb/hr, and
P = process weight rate in tons/hr.

b. Pursuant to 401 KAR 59:010 Section 3(1), no person shall cause, suffer, allow, or permit any continuous emissions into the open air from the Nutritional Oil process equipment which is equal to or greater than twenty (20) percent opacity.

Compliance Demonstration Method
Mass Emission Standard:
PM emission rate (lb/hr) = [{Amount of Nutritional oil (pounds) produced per month} x {Emission Factor in pounds PM emitted per ton Nutritional oil produced} ÷ {Total hours of Nutritional oil produced during the month}] ÷ (2000 lb/ton)

3. Testing Requirements:
Pursuant to 401 KAR 59:005 Section 2(2) and 401 KAR 50:045 Section 1, performance testing using Reference methods specified in 401 KAR 50;015 shall be conducted as required by the Division.

REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

The permittee shall monitor the following information:

a. The monthly total amount of Nutrional Oil produced.
b. The monthly total hours of operation of Nutrional Oil produced.

5. Specific Recordkeeping Requirements:

The permittee shall maintain records of the following information:

a. The monthly total amount of Nutrional Oil produced.
b. The monthly total hours of operation of Nutrional Oil produced.

6. Specific Reporting Requirements:

The permittee shall submit a report of the following information to the Division for Air Quality's Frankfort office in accordance with Section F. 5. and F. 7:

a. The monthly total amounts of Nutrional Oil produced.
b. The monthly total hours of operation of Nutrional Oil produced.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE

REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Winchester Plant 2

210 (BO-9201) **Boiler #1**
Natural gas fired
63 mmBtu/hr rated capacity
Hurst 50,000 lb/hr Fire tube Package Boiler
Proposed date of installation: October 2003

211 (BO-9201) **Boiler #2**
Natural gas fired
63 mmBtu/hr rated capacity
Hurst 50,000 lb/hr Fire tube Package Boiler
Proposed date of installation: October 2003

212 (HE-5204) **High Pressure Steam Generator**
Natural gas fired
7 mmBTU/hr rated capacity
1,000 lb/hr High Pressure Steam Generator
Proposed date of installation: October 2003

213 (HE-3761) **Dryer Heater**
Natural gas fired
4 mmBtu/hr rated capacity
4,000 lb/hr Dryer Heater
Proposed date of installation: October 2003

APPLICABLE REGULATIONS:
401 KAR 59:015, New indirect heat exchangers, applies to the particulate matter and sulfur dioxide emissions from indirect heat exchangers, commenced on or after April 9, 1972 with a capacity of 250 million BTU per hour heat input or less with respect to particulate emissions and sulfur dioxide emissions.

401 KAR 60:005 incorporating by reference 40 CFR 60, Subpart Dc, Standards of performance for small industrial-commercial-institutional steam generating, applies to each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million Btu per hour (Btu/hr)) or less, but greater than or equal to 2.9 MW (10 million Btu/hr) [40 CFR 60.40c(a)].

1. **Operating Limitations:**
Boiler #1, Boiler #2, the High Pressure Steam Generator, and the Dryer Heater shall be fired with natural gas only.

Compliance Demonstration Method:
The permittee shall monitor and maintain records of daily natural gas usage.

2. Emission Limitations:

Standards for Particulate Matter:

a. Pursuant to 401 KAR 59:015 Section 4(1)(c), for Boiler #1, Boiler #2, the High Pressure Steam Generator, and the Dryer Heater , emissions of particulate matter shall not exceed 0.28 lbs. per mmBTU actual heat input.

b. Pursuant to 401 KAR 59:015, Section 4(2), emissions of particulate matter from Boiler #1, Boiler #2, the High Pressure Steam Generator, and the Dryer Heater, shall not exceed 20 percent opacity.

Standards for Sulfur Dioxide:

c. Pursuant to 401 KAR 59:015, Section 5(1)(a), for Boiler #1, Boiler #2, the High Pressure Steam Generator, and the Dryer Heater, emissions of sulfur dioxide shall not exceed 0.88 lbs. per mmBTU actual heat input.

Compliance Demonstration Method: No compliance demonstration is required. The potential to emit and actual emissions of sulfur dioxide and particulate from the natural gas boilers are less than 10% of their respective allowable emission rates.

3. Testing Requirements:

Pursuant to 401 KAR 59:005 Section 2(2) and 401 KAR 50:045 Section 1, performance testing using Reference methods specified in 401 KAR 50:015 shall be conducted as required by the Division.

4. Specific Monitoring Requirements:

The permittee shall monitor daily natural gas usage for Boiler #1, Boiler #2, the High Pressure Steam Generator, and the Dryer Heater boiler.

5. Specific Recordkeeping Requirements:

The permittee shall maintain daily records of natural gas usage for Boiler #1, Boiler #2, the High Pressure Steam Generator, and the Dryer Heater for a period of five (5) years. [40 CFR 60.48c(g)]

6. Specific Reporting Requirements:

The permittee shall submit a report of the following information to the Division for Air Quality's Frankfort Regional Office in accordance with Section F.5, F.6, and F.8:

a. The daily records of natural gas usage for each boiler.

b. For Boiler #1 and 2, notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.7. This notification shall include:

(1) The design heat input capacity of Boiler #1 and 2 and identification of the fuel to be combusted in Boiler #1 and 2.

(2) The annual capacity factor at which the permittee anticipates operating Boiler #4 based on all fuels fired and based on each individual fuel fired.

c. Any exceedance of the particulate matter, opacity, and sulfur dioxide emissions limitations within thirty days of when the exceedance is determined.

Winchester Plant 2

214 (14) Ammonium Hydroxide Tank

Description: Ammonium hydroxide Tank (TK-6540)
Maximum continuous rating: 20,800 pounds per hour
Proposed date of installation: N/A

APPLICABLE REGULATIONS:
401 KAR 63:020, Potentially hazardous matter or toxic substances, applies to each affected facility which emits or may emit potentially hazardous matter or toxic substances, provided such emissions are not elsewhere subject to the provisions of the administrative regulations of the Division for Air Quality.

4. Operating Limitations:
See Section D - Source Emission Limitations and Testing Requirements.

5. Emission Limitations:
See Section D - Source Emission Limitations and Testing Requirements.

6. Testing Requirements:
Pursuant to 401 KAR 59:005 Section 2(2) and 401 KAR 50:045 Section 1, performance testing using Reference methods specified in 401 KAR 50:015 shall be conducted as required by the Division.

4. Specific Monitoring Requirements:
The permittee shall monitor the following information:
a. The monthly total amount of Ammonium hydroxide stored in Ammonium Hydroxide Tank (TK-6540).
b. The monthly total hours of operation of Ammonium Hydroxide Tank (TK-6540).

5. Specific Recordkeeping Requirements:
The permittee shall maintain records of the following information:
a. The monthly total amount of Ammonium hydroxide stored in Ammonium Hydroxide Tank (TK-6540).
b. The monthly total hours of operation of Ammonium Hydroxide Tank (TK-6540).

6. Specific Reporting Requirements:
The permittee shall submit a report of the following information to the Division for Air Quality's Frankfort office in accordance with Section F. 5. and F. 7:
a. The monthly totals amount of Ammonium hydroxide stored in Ammonium Hydroxide Tank (TK-6540).
b. The monthly total hours of operation of Ammonium Hydroxide Tank (TK-6540).

Winchester Plant 2

215 (15) Base Tanks

Description: Base Tanks (TK-6550 and TK-6560)
Maximum continuous rating: 2500 pounds per hour
Proposed date of installation: N/A

APPLICABLE REGULATIONS:
401 KAR 63:020, Potentially hazardous matter or toxic substances, applies to each affected facility which emits or may emit potentially hazardous matter or toxic substances, provided such emissions are not elsewhere subject to the provisions of the administrative regulations of the Division for Air Quality.

7. Operating Limitations:
See Section D - Source Emission Limitations and Testing Requirements.

8. Emission Limitations:
See Section D - Source Emission Limitations and Testing Requirements.

9. Testing Requirements:
Pursuant to 401 KAR 59:005 Section 2(2) and 401 KAR 50:045 Section 1, performance testing using Reference methods specified in 401 KAR 50:015 shall be conducted as required by the Division.

4. Specific Monitoring Requirements:
The permittee shall monitor the following information:
a. The monthly total amount of Ammonium hydroxide pumped into the Base Tanks (TK-6550 and TK-6560).
b. The monthly total hours of operation of Base Tanks (TK-6550 and TK-6560).

5. Specific Recordkeeping Requirements:
The permittee shall maintain records of the following information:
a. The monthly total amount of Ammonium hydroxide pumped into the Base Tanks (TK-6550 and TK-6560).
b. The monthly total hours of operation of Base Tanks (TK-6550 and TK-6560).

6. Specific Reporting Requirements:
The permittee shall submit a report of the following information to the Division for Air Quality's Frankfort office in accordance with Section F. 5. and F. 7:
a. The monthly total amount of Ammonium hydroxide pumped into the Base Tanks (TK-6550 and TK-6560).
b. The monthly total hours of operation of Base Tanks (TK-6550 and TK-6560).

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source

pursuant to 401 KAR 52:020, Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

Description	Generally Applicable Regulation
1. Six (6) fermentors	401 KAR 59:010
2. Deodorizer	401 KAR 59:010
3. Equalization tank	401 KAR 59:010
4. Research and Development Welding	401 KAR 59:010
5. Research and Development Lab	401 KAR 59:010, 401 KAR 63:010
6. Disposal of Biomeal	401 KAR 59:010, 401 KAR 63:010
7. Three (3) Production Fermentation tanks 200,000 liters, each	401 KAR 59:010, 401 KAR 63:010
8. Four (4) Seed tanks: 1-40,000 liters 1-4,000 liters 1-400 liters 1-40 liters	401 KAR 59:010, 401 KAR 63:010

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

As required by Section 1b of the Cabinet Provisions and Procedures for Issuing Title V Permits

incorporated by reference in 401 KAR 52:020, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.

APPLICABLE REGULATIONS:
401 KAR 50:012, General application, applies to all major air contaminant sources for which a standard is not specified in Kentucky's Air Quality Administrative Regulations.

401 KAR 63:020, Potentially hazardous matter or toxic substances, applies to each affected facility which emits or may emit potentially hazardous matter or toxic substances, provided such emissions are not elsewhere subject to the provisions of the administrative regulations of the Division for Air Quality.

1. Operating Limitations:

The permittee shall as a minimum apply control procedures that are reasonable, available, and practical.

The permittee shall provide the utmost care and consideration, in the handling of hazardous matter or toxic substances, to the potentially harmful effects of the emissions resulting from such activities.

Compliance Demonstration Method

The permittee shall submit a plan proposing control procedures that are reasonable, available, and practical for the control of Volatile Organic Compounds and Hexane for evaluation by the Division within 30 days of issuance of the proposed permit. The plan shall analyze the adequacy of current control procedures as well as propose additional control procedures as needed.

2. Emission Limitations:

No owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants.

Compliance Demonstration Method

The permittee shall submit air dispersion modeling and an analysis of all affected facilities that emit Hexane and Ammonia as to the adequacy of controls and/or procedures and emission potential for evaluation by the Division within 30 days of issuance of the proposed permit.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating

and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b (IV)1 of the Cabinet Provisions and Procedures for Issuing Title V Permits incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:

a. Date, place as defined in this permit, and time of sampling or measurements;
b. Analyses performance dates;
c. Company or entity that performed analyses;
d. Analytical techniques or methods used;
e. Analyses results; and
f. Operating conditions during time of sampling or measurement.

2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b(IV) 2 and 1a(8) of the Cabinet Provisions and Procedures for Issuing Title V Permits incorporated by reference in 401 KAR 52:020, Section 26].

3. In accordance with the requirements of 401 KAR 52:020 Section 3(1)h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
   a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
   b. To access and copy any records required by the permit:
   c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

   Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

5. Summary reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Section 1b (V)1 of the Cabinet Provisions and Procedures for Issuing Title V Permits incorporated by reference in 401 KAR 52:020, Section 26].

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. Data from the continuous emission and opacity monitors shall be reported to the Technical Services Branch in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All reports shall be certified by a responsible official pursuant to 401 KAR 52:020 Section 23. All deviations from permit requirements shall be clearly identified in the reports.

7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
   a. When emissions during any planned shutdowns and ensuing startups will exceed the standards notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
   b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall submit written notice upon request.

8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7. above) to the Regional Office listed on the front of this permit within 30 days. Other deviations from permit requirements shall be included in the semiannual report required by Section F.6 [Section 1b (V) 3, 4. of the Cabinet Provisions and Procedures for Issuing Title V Permits incorporated by reference in 401 KAR 52:020, Section 26].

9. Pursuant to 401 KAR 52:020, Permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
   a. Identification of the term or condition;
   b. Compliance status of each term or condition of the permit;
   c. Whether compliance was continuous or intermittent;
   d. The method used for determining the compliance status for the source, currently and over the reporting period.
   e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

Division for Air Quality
Frankfort Regional Office
643 Teton Trail, Suite B
Frankfort, KY 40601

U.S. EPA Region IV
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth St.
Atlanta, GA 30303-8960

Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee.

11. Pursuant to Section VII (3) of the policy manual of the Division for Air Quality as referenced in 401 KAR 50:016, Section 1(1), results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days after the completion of the fieldwork.

SECTION G - GENERAL PROVISIONS

(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020 and of the Clean Air Act and is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a, 3 of the Cabinet Provisions and Procedures for Issuing Title V Permits incorporated by reference in 401 KAR 52:020 Section 26].

2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a, 6 of the Cabinet Provisions and Procedures for Issuing Title V Permits incorporated by reference in 401 KAR 52:020, Section 26].

3. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
   a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
   b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
   c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;

   Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or compliance with the conditions of this permit [Section 1a, 7,8 of the Cabinet Provisions and Procedures for Issuing Title V Permits incorporated by reference in 401 KAR 52:020, Section 26].

5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a, 14 of the Cabinet Provisions and Procedures for Issuing Title V Permits incorporated by reference in 401 KAR 52:020, Section 26].

7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a, 4 of the Cabinet Provisions and Procedures for Issuing Title V Permits incorporated by reference in 401 KAR 52:020, Section 26].

8. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens of the United States [Section 1a, 15 of the Cabinet Provisions and Procedures for Issuing Title V Permits incorporated by reference in 401 KAR 52:020, Section 26].

9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a, 10 of the Cabinet Provisions and Procedures for Issuing Title V Permits incorporated by reference in 401 KAR 52:020, Section 26].

10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3)(b)].

11. This permit does not convey property rights or exclusive privileges [Section 1a, 9 of the Cabinet Provisions and Procedures for Issuing Title V Permits incorporated by reference in 401 KAR 52:020, Section 26].

12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.

13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3)(d)].

14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3)(a)].

15. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

SECTION G - GENERAL PROVISIONS (CONTINUED)

16. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of issuance. Compliance with the conditions of a permit shall be considered compliance with:
    (a) Applicable requirements that are included and specifically identified in the permit and
    (b) Non-applicable requirements expressly identified in this permit.

(b) Permit Expiration and Reapplication Requirements

1. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].

2. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020 Section 8(2)].

(c) Permit Revisions

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).

2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

(d) Construction, Start-Up, and Initial Compliance Demonstration Requirements
Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of the equipment described herein, emission points X,Y,Z in accordance with the terms and conditions of this permit.

1. Construction of any process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.

SECTION G - GENERAL PROVISIONS (CONTINUED)

2. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, with a copy to the Division's Frankfort Central Office, notification of the following:
   a. The date when construction commenced.
   b. The date of start-up of the affected facilities listed in this permit.
   c. The date when the maximum production rate specified in the permit application was achieved.

3. Pursuant to 401 KAR 52:020, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the Cabinet may extend these time periods if the source shows good cause.

4. For those affected facilities for which construction is authorized by this permit, a source shall be allowed to construct with the proposed permit. Operational or final permit approval is not granted by this permit until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055. If compliance is not demonstrated within the prescribed timeframe provided in 401 KAR 50:055, the source shall operate thereafter only for the purpose of demonstrating compliance, unless otherwise authorized by Section I of this permit or order of the Cabinet.

5. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration (test) on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. These performance tests must also be conducted in accordance with General Provisions G(d)7 of this permit and the permittee must furnish to the Division for Air Quality's Frankfort Central Office a written report of the results of such performance test.

6. Terms and conditions in this permit established pursuant to the construction authority of 401 KAR 51:017 or 401 KAR 51:052 shall not expire.

7. Pursuant to Section VII 2.(1) of the policy manual of the Division for Air Quality as referenced by 401 KAR 50:016, Section 1.(1), at least one month prior to the date of the required performance test, the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the Division's Frankfort Central Office. Pursuant to 401 KAR 50:045, Section 5, the Division shall be notified of the actual test date at least ten (10) days prior to the test.

SECTION G - GENERAL PROVISIONS (CONTINUED)

8. Pursuant to Section VII 1.(2 and 3) of the policy manual of the Division for Air Quality as referenced by 401 KAR 50:016, Section 1.(1), if a demonstration of compliance, through

performance testing was made at a production rate less than the maximum specified in the application form, then the permittee is only authorized to operate at a rate that is not greater than 110% of the rate demonstrated during performance testing. If and when the facility is capable of operation at the rate specified in the application, compliance must be demonstrated at the new production rate if required by the Division.

(e) Acid Rain Program Requirements

If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

(f) Emergency Provisions

1. Pursuant to 401 KAR 52:020 Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
   a. An emergency occurred and the permittee can identify the cause of the emergency;
   b. The permitted facility was at the time being properly operated;
   c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
   d. Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken. This requirement does not relieve the source of other local, state or federal notification requirements.

2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].

3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

(g) Risk Management Provisions

1. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center
P.O. Box 3346
Merrifield, VA, 22116-3346

2. If requested, submit additional relevant information to the Division or the U.S. EPA.

(h) Ozone depleting substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
   a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
   b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
   c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
   d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166
   d. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
   f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

SECTION H - ALTERNATE OPERATING SCENARIOS

None

SECTION I – COMPLIANCE SCHEDULE

None